

REMARKS

Reconsideration of the present application is respectfully requested in view of the following remarks. Claims 1, 2, 6-9 are currently pending in the application, of which claims 1 and 6 are independent. In the Office Action dated March 17, 2006, the Examiner rejected claims 1, 2, 6, and 7 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 4,182,437 ("Roberts") in view of U.S. Patent No. 5,583,080 ("Gulberg") and in further view of JP 56016578A and U.S. Patent No. 5,871,159 ("Carlson"). The Examiner also rejected claims 1, 2, 6, and 7 under 35 U.S.C. §103(a) as being obvious over *Roberts* in view of U.S. Patent No. 4,090,882 ("Rauschenfels") and in further view of JP 56016578A and *Carlson*. The Examiner further rejected claims 8 and 9 under 35 U.S.C. §103(a) as being obvious over *Roberts* in view of *Rauschenfels* and in further view of U.S. Patent No. 4,320,823 ("Covaleski").

A telephone interview was conducted between the Examiner and the undersigned on May 22, 2006. Applicants and the undersigned would like to sincerely thank the Examiner for participating in the interview and submit that the remarks below reflect the arguments presented during the interview.

Specifically, the Examiner and the undersigned discussed the claim 1 limitation requiring "an average fiber length in a range of from 100 µm to 1500 µm." The undersigned pointed out to the Examiner that while *Roberts* states that "the diameter and length of the fibers are not at all critical and may vary widely," that statement was qualified immediately thereafter in *Roberts'* disclosure by a specific range, which was referred to by the Examiner in the rejections and explicitly states that "[l]engths, when continuous fibers are not used, may average from about 1 centimeter to about 50 centimeters." Column 7, lines 1-3. The

undersigned further brought to the Examiner's attention that *Roberts'* range of 1 cm to 50 cm converts to 10,000 μm to 500,000 μm , which is more than 100 times the range required by Applicants' claim 1. In view of this significant difference, the undersigned asserted that *Roberts'* range cannot render obvious the Applicants' fiber length range of 100 μm to 1,500 μm .

In view of the undersigned's statements, the Examiner agreed that because *Roberts* is the sole reference relied on in each of the combinations to show the limitation requiring "an average fiber length in a range of from 100 μm to 1500 μm ," when the undersigned's above statements are rendered in writing and considered, they should overcome both rejections of claim 1 under 35 U.S.C. §103(a).

The Examiner's other rejections in the Office Action of March 17, 2006, are hereby addressed in turn.

Rejections over *Roberts*, *Gulberg*, JP 56016578A, and *Carlson*

As mentioned above, *Roberts* fails to show or suggest "an average fiber length in a range of from 100 μm to 1,500 μm ," which is required by claim 1 and which, according to Applicants' disclosure, is for fiber dispensability in Applicants' soluble amorphous substance. Applicants' disclosure, page 7, lines 15-17. Applicants also submit that *Roberts'* mere mention that "powder or beads, which, if desired, can be fabricated from the fibers" fails to show or suggest the specific grain size required by claim 6, which clearly recites that "the soluble amorphous substance is formed of grains having an average grain size in a range of from 2 μm to 100 μm ." The use of the specified grain size to achieve the desired solubility is explained in Applicants' disclosure at page 7, line 19 to page 8, line 1.

Furthermore, Applicants submit that JP 56016578A and *Carlson*, which were referred to by the Examiner as disclosing fiber length of 0.5-30 mm and 374 μm , respectively, fail to show or suggest Applicants' composition as recited in independent claims 1 and 6. Therefore, Applicants submit that JP 56016578A and *Carlson* fail to provide the necessary motivation for being combined with *Roberts* and *Gulberg* to arrive at Applicants' invention of claim 1. Applicants additionally submit that both JP 56016578A and *Carlson* fail to show or suggest the soluble amorphous substance being formed of grains having an average grain size in a range of from 2 μm to 100 μm . Therefore, Applicants submit that neither JP 56016578A nor *Carlson* provides the necessary motivation to being combined with *Roberts* and *Gulberg* to arrive at Applicants' invention of claim 6.

Moreover, in rejecting claims 1 and 6, the Examiner conceded that *Roberts* fails to show or suggest "at least 0.1wt% but less than 10 wt% of at least one of Al_2O_3 and ZrO_2 ." Office Action, page 6. The Examiner instead relied on *Gulberg* to show this feature. During the interview, the undersigned brought to the Examiner's attention that *Gulberg* explicitly states that its mineral composition consists of 6.5-8 ww% FeO, which is significantly higher than the "less than 2 wt% of at least one of Na_2O , K_2O , FeO, Fe_2O_3 " recited in Applicants' claims 1 and 6. The undersigned asserted that *Gulberg* expressly teaches away from Applicants' invention and fails to provide any necessary motivation that would have led a person skilled in the art to combine the teaching of *Gulberg* with the other cited references in an effort to make the invention of claims 1 and 6.

The Examiner contended that a person skill in the art would have ignored the explicit requirement of *Gulberg* regarding the inclusion of 6.5-8 ww% FeO, but would have been motivated to adopt *Gulberg*'s inclusion of Al_2O_3 in order to increase viscosity. Applicants

submit that the inventions of claims 1 and 6 are not so much concerned with increasing viscosity, but are rather direct to creating “a substance that is soluble in humor when it enters a body” and Applicants’ disclosure notes that in the range of $\text{Al}_2\text{O}_3 \leq 5\text{wt\%}$ and $\text{ZrO}_2 \leq 5\text{wt\%}$, the solubility is more improved as they approach 0 wt%.” Applicants’ disclosure, page 5, lines 12-13, 23, and 24. Therefore, Applicants submit that a person skilled in the art, in attempting to arrive at the Applicants’ invention, would not have the necessary motivation to selectively ignore *Guldberg*’s explicit requirement of 6.5-8 ww% FeO, but adopt *Guldberg*’s inclusion of Al_2O_3 in order to improve viscosity when combined with *Roberts*.

Accordingly, Applicants submit that for at least the above reasons, independent claims 1 and 6 are not obvious under 35 U.S.C. §103(a) over the combination of *Roberts*, *Gulberg*, JP 56016578A, and *Carlson*. Claims 2, 7, 8, and 9 depend from claims 1 and 6, and are, therefore, also not obvious over the above combination for at least the same reasons.

Rejections over *Roberts*, *Rauschenfels*, JP 56016578A, and *Carlson*

As mentioned above, *Roberts* fails to show or suggest the average fiber length and grain size as required by claims 1 and 6. Applicants submit that at least because *Roberts* , as acknowledged by the Examiner during the interview, is the sole reference relied upon to show these elements, claims 1 and 6 are allowable over the above combination under 35 U.S.C. §103(a). Claims 2, 7-9 each depend from one of claims 1 and 6 and are, therefore, also allowable over the above combination under 35 U.S.C. §103(a) for at least the same reasons.

Conclusion

In view of the foregoing remarks, Applicants submit that the pending claims 1, 2, and 6-9 are neither anticipated nor rendered obvious in view of the prior art references cited against this application. Therefore, Applicants respectfully request reconsideration and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account 06-0916.

Respectfully submitted,

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By:



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